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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,740	10/22/2001	Yet-Ming Chiang	M00925/70108 TJO	1110

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EXAMINER

MAPLES, JOHN S

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/021,740

Applicant(s)

CHIANG ET AL.

Examiner

John S. Maples

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 58-128 ~~is/are~~ pending in the application.
- 4a) Of the above claim(s) 58-64, 74, 75, 89 and 99-128 ~~is/are~~ withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 65-73, 76-88, 90, 91 and 96-98 ~~is/are~~ rejected.
- 7) ☒ Claim(s) 92-95 ~~is/are~~ objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: *Reasons for Allowance*.

*Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 58-63, drawn to an electrode with channels, classified in class 429, subclass 209.
  - II. Claim 64, drawn to a battery with perforated electrode, classified in class 429, subclass 122.
  - III. Claims 65-73, 76-88 and 90-98, drawn to an article with protrusions and indentations, classified in class 429, subclass 210.
  - IV. Claims 99-102, drawn to an electrode with varying porosity, classified in class 429, subclass 209.
  - V. Claims 74, 75, 89, 103-109, drawn to an article with varying/increased conductivity, classified in class 429, subclass 210.
  - VI. Claims 110-128, drawn to a energy storage device with varying porosity, classified in class 429, subclass 122.
2. The inventions are distinct, each from the other because of the following reasons: Group I includes an electrode with channels, which feature is not part of any of the other groups II-VI. Likewise, Group II comprises an electrode with a perforated electrode and Groups III-VI do not have this limitation. Group IV describes an electrode with varying porosity from one end to another end, which feature does not form part of any of groups III or V-VI. It is noted that in Group VI, the porosity changes in a specific configuration not covered by Group IV. Groups III and VI do not comprise an article with varying/increased conductivity as does Group V. Finally, Group III does not include varying porosity as does Group VI.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Tim Oyer on August 12, 2003 a provisional election was made with traverse to prosecute the invention of Group III, claims 65-73, 76-88 and 90-98. Affirmation of this election must be made by applicant in replying to this Office action. Claims 58-64, 74, 75, 89 and 99-128 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Claim 74 is objected to being dependent on itself.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 65-73, 76-88, 90-91, 96-98 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel et al.-US 6,342,317 (Patel)

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See Figure 5 of Patel along with column 2, line 46-column 3, line 38, column 6, lines 27-34. As seen in Figure 5 of Patel, the lobe surface area is at least 5 times greater than the theoretical distance of a smooth, non-reticulated configuration of the anode 42. The distances were measured by the examiner taken from Figure 5 of Patel.

9. Claims 65-69, 72-73, 77-81, 85-88, 90-91 and 96-98 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen-US 5,677,080. (Chen)

Reference is made to Figure 5 of the patent to Chen along with column 5, lines 22-52.

10. The following is an examiner's statement of reasons for allowance: none of the prior art show an article with two electrodes wherein the first electrode defines a plurality of protrusions and indentations and wherein a cross-sectional thickness of the first electrode varies along with length thereof wherein the two electrodes are separated by a distance less than 100 microns.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 703-308-1795. The examiner can normally be reached on Monday-Thursday from 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 703-308-2383. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in black ink, appearing to read 'John S. Maples', with a stylized, cursive script.

John S. Maples  
Primary Examiner  
Art Unit 1745

JSM/8-25-2003